

preceding the first appearance of trouble with the skin.

While still a student in the East and under the care of different excellent men, many tests for sensitiveness to foreign proteins were made. His skin was found to react conclusively to lima beans, peas, and cologne, and to nothing else. He refuses to accept the casual relationship of cologne. A hunt for a cause is still being made. In the meantime the condition is kept under control only while the patient follows the most careful daily regimen of living.

A patient of recent date gave a history of having had chronic recurrent urticaria for five months, principally about the buttocks, thighs, and lower abdomen, with swelling of the lips. When he came in, the left side of the upper lip was swollen. Four months later he again presented himself, at which time he was free from any disturbance. He had observed in the meantime that most of the green vegetables, cooked or raw, caused an outbreak. Fruits, however, and tomatoes did not do so, nor was he affected by potato. Dry beans and canned peas were great offenders, but wheat was not so. He chewed much tobacco and smoked a little, but this vegetable did not cause trouble.

If this patient is an example of an anaphylactoid tendency—and I believe he may be—there must be an intricacy difficult of explanation. The case cited, with an anaphylaxis toward mutton and beef, was not anaphylactic to meat as meat, nor to one kind only.

I am at a loss to offer anything conclusive. Such work as that of Arthus, Barnathon and Nobecourt, showing that sensitization to a foreign protein may be produced by the absorption from the alimentary tract of proteins incompletely hydrolyzed because of some digestive irregularity, must be carefully weighed. And we must accept as a working basis that foreign proteins in the blood may establish what is known as an anaphylactic state. The patient is sensitized, and his skin is rendered allergic; i. e., made ready to react to the local inoculation of the protein to which the person is sensitized.

Much has been written upon the subject. How great a percentage of instances of urticaria, giant urticaria, and the dermatitides can be explained upon an allergenic basis, or whether or not all can, no one knows. With such a highly organized part of the body as the skin, which is so intimately linked with the digestive and nervous systems, and which is so greatly influenced by the endocrine secretions and by conditions of the fluids circulating in the blood-vessels and lymphatics, almost no phenomenon is too intricate to believe possible.

323 Geary street.

---

Health, longevity and intelligence are largely questions of heredity. Those medicos who are anxious to establish a medical autocracy, destroy the liberty of the subject, and legislate for the individual from the antenatal state to the grave, had better start with the ancestors.—(Sir James Barr, M. D. American Medicine, June, 1923.)

## NITROUS OXID ANESTHESIA IN INDUSTRIAL SURGERY \*

By H. G. McNEIL, M. D., Los Angeles

Industrial surgery in its various divisions is a particularly exacting specialty, and as such must call to its aid all modern and scientific appliances which will assist in the prompt and painless recovery of injured employees. Its major work should be done in a good hospital and under the observation of a staff, which should be a teaching staff where such is available.

Those who have made the most careful study of this class of work and are oldest in it, I believe realize more and more that the name "industrial surgeon" is too broad a term, and that as time goes on this industrial medical and surgical work will be more properly cared for in hospitals which have an industrial staff with trained assistants. The growing importance of this class of work will soon make it incumbent on all hospitals to provide for it in a very special manner. Certainly, in this way only can the best results be obtained, as eternal vigilance is the price of success. There must be a minimum of poor results, as we are not dealing only with convenience or cosmetic effects, but with the future earning ability of our patients which, once destroyed, cannot be returned to them.

These patients, because they are being cared for under a compensation act, are sensitive and critical, which is a further reason why they should be given the most exacting care. The introductory work should be done with care and gentleness to obtain their confidence, and the subsequent attention made as painless as possible.

It is just along these lines that I wish to impress upon you the necessity of using every available means to treat these many painful injuries and dressings in the most painless manner. It has often been said that if every physician had to have one baby that the science of obstetrics would long ago have been the highest developed. So in industrial work. If each surgeon had to submit to the daily dressing of a third-degree burn he would at once look for the most harmless method of relief which at present seems to be nitrous oxid gas.

This gas, discovered by Priestly in 1872, was first used as an anesthetic by Horace Well in 1844. It offers us so much that it is hard to be over-enthusiastic in its use. Under its influence all kinds of long and tedious operations may be done with the greatest safety. Its value and place in general surgery is now well founded, but I do not believe it is as universally used in industrial work as its merits justify. It is not as toxic as either chloroform or ether, and the signs of asphyxia are so plain, distinct, and easily recognized that even one not experienced in its administration should be able to prevent a fatal asphyxia. Of course, the administration of any anesthetic should not be entrusted to a layman when the services of a physician can be obtained. And I insist on the anesthetist attending strictly to his own business. He should continually observe every detail of his work as closely

---

\* Presented to Section on Industrial Medicine and Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

as the surgeon does his, and it is only by so doing that he can guide his patient safely through with the more toxic anesthetics and maintain a proper degree of anesthesia with gas.

The machines in use today are so simple and accurate that it is possible at all times to know almost the exact proportions of nitrous oxid and oxygen being given, and to change the mixture as the indications arise. We occasionally find individuals who cannot be anesthetized with nitrous oxid, and for these the machine is so equipped that ether may also be used. This is rarely necessary except in prolonged operations on plethoric or husky individuals. The amount of ether used in such cases never goes beyond the point of stimulation, so that the depressing nauseating effect of deep ether saturation with a prolonged recovery and danger of anesthetic poisoning is avoided.

While it may sometimes be considered a convenience in fracture work, it is a necessity, and only by its aid can we continually get the best results. I use it universally both in office and hospital practice where a short anesthesia is desired. The patient is usually awake and able to go to the X-ray room by the time the reduction is made and dressings applied. The plates can be viewed in a few minutes, and if the results are not satisfactory the process is repeated until we are satisfied even if it takes four or five attempts.

I know of nothing in surgery which is more pleasing than the satisfactory reductions of a difficult fracture, nor is there anything more distasteful than to acknowledge a poor reduction. Our results are what we make them, and the first efforts must be the best. Nature is very kind when she cures most of our diseases, heals our wounds, and unites our fractured bones, but she refuses to be responsible for their proper alinement.

Then there are those painful and time-consuming dressings which wear out the nerves of the patient and the back of the doctor. Shifting of splints, movement of ankylosed joints, dressing extensive burns, and drainage can all come under this heading and can be best cared for with the aid of gas. Here, as a rule, we use simple analgesia such as the dentist employs for filling teeth, the patient taking as much as he wishes through a nose-piece, which falls from his hand if he becomes unconscious.

It will be necessary to discuss the cost of the service, as that question is always brought up by those unfamiliar with the liberal use of this gas. The machine is as much a part of regular equipment as the office desk, and must be so considered in any modern office or hospital doing accident work. If results are what count, it will pay for itself in the first difficult fracture case, where a poor result would run compensation into hundreds of dollars. Proper first-aid treatment will often obviate the necessity of much massage and other corrective manipulations, which we find a necessary but burdensome part of our work. Material costs should run about \$1.25 per hour, which is not excessive for the first aid, and as subsequent needs are usually only for a few minutes at a time, the total

cost is not great and is even small when the relief afforded is a consideration.

In conclusion, allow me to state that I believe that more thorough work can be done and quicker recoveries secured when painless methods are employed.

939 Pacific Mutual Building.

---

**The Alameda County Medical Association as Host to the American Medical Association**—The Alameda County Medical Association on Monday, June 25, entertained over five hundred visiting Fellows of the A. M. A. and their friends, giving them a day they will long remember. After the morning clinics a genuine old-fashioned California barbecue was served in the magnificent Redwood Grove at the Claremont Country Club.

After the barbecue, came the drive over the famous Skyline Boulevard, called by Baedeker "the third most beautiful drive in the world." As you wind along these hills, 1500 feet above the city, you can see the whole stretch of the San Francisco Bay, from Vallejo to San Mateo, with the city of San Francisco and the Golden Gate directly before you. Through the tunnel and on over hill, and through dale, through the wonderful Mount Diablo country, and to the Mount Diablo Country Club, nestling at the foot of the grand old mountain from which it takes its name. Here were distributed baskets of California's choicest fruits, to serve as a dessert to the barbecue.

The return was made by way of the San Ramon and Amador Valleys, and through the Dublin Canyon, arriving in Oakland in ample time to return to San Francisco for dinner.

On Monday morning, June 25, the following clinics were held:

Fabiola Hospital: Pernicious Anemia, H. Z. Giffin, Mayo Clinic, Rochester, Minn.; Carcinoma of Descending Colon, Daniel Crosby, Oakland, Calif.; Demonstration of a New Fracture Table, W. L. Bell, Oakland, Calif.

Samuel Merritt Hospital: Urography as a Means of Urological Diagnosis with Discussion of Cases, William F. Braach, Mayo Clinic, Rochester, Minn.; Retroversion of the Uterus, S. H. Buteau, Oakland, Calif.

Providence Hospital: Tumors of the Breast, Jabez N. Jackson, Kansas City, Mo.; Methods and Results of Fecal Examinations for Intestinal Protozoa, Dr. Charles A. Kofoid, University of California, Berkeley, California.

On Tuesday, June 26, the following clinics were held:

Fabiola Hospital: Protein Sensitization as Cause of Disease, W. W. Duke, Kansas City, Mo.; Ulcer of Stomach—Diagnosis and Disease, Robert Coffey, Portland, Ore.

Samuel Merritt Hospital: Diagnosis of Diseases of the Gall Bladder, also Pictures of Gastric Ulcers, Max Einhorn, New York; Post-Operative Embolism, Charles A. Dukes, Oakland, Calif.

Providence Hospital: Osteomyelitis and Tumor of the Bone, Dean Lewis, Chicago; Treatment of Diabetes with Insulin, W. D. Sansum, Santa Barbara; Tuberculosis, Kennon Dunham, Cincinnati.

No movement has been developed in medical organization work of greater value than these well planned, organized and conducted diagnostic clinics. Every physician who attended the clinics in the Oakland hospitals, as well as San Francisco, expressed the greatest satisfaction with the results. Patients will secure better care and the cause of better medicine and public health be definitely advanced by making this movement, started at the California session, a permanent feature of A. M. A. meetings.